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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,555	12/20/2001	Linda J. Rankin	10559-636001/P12340	4689
20985	7590	05/31/2005	EXAMINER	
FISH & RICHARDSON, PC 12390 EL CAMINO REAL SAN DIEGO, CA 92130-2081			KING, JUSTIN	
			ART UNIT	PAPER NUMBER

2111

DATE MAILED: 05/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/029,555

Applicant(s)

RANKIN ET AL.

Examiner

Justin I. King

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 1 is objected to because of the following informalities: Claim 1 recites "the third node" in the last line. Applicant may have meant "the third node device" in stead of. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 6 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Claim 6 and 8 recite the limitation "the node ID information" in claim 6's first line and claim 8's 2<sup>nd</sup> line. In the parent claim 1, there is one node ID information identifying the second node device and there is another node ID information identifying the third node device. Applicant needs to specify which node ID information is being referring to here.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

6. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7. Claims 9-11, 14-16, and 25-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Hewitt et al. (U.S. Patent No. 6,865,618).

Referring to claims 9 and 25: Hewitt discloses a packet-based communication (column 1, lines 36-52). Hewitt discloses that the node stores a list of the node ID information (column 5, lines 46-50) and each node has a configuration register for its own configuration information (column 1, last line, column 2, lines 1-2). The configuration information within the configuration register is equivalent to the node ID information, and the configuration process (column 5, lines 43-48) is equivalent to the retrieving node ID information, and the device list (column 5, line 48) is equivalent to the claimed storage device. Hence, the claim is anticipated by Hewitt.

Referring to claims 10 and 26: Hewitt discloses that the processor accesses the configuration space of each I/O node (column 5, lines 2-3), which is equivalent to the claimed third node accessing the node ID information.

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Referring to claim 11: Hewitt discloses that each node has a configuration register (column 1, last line, column 2, lines 1-2), which is equivalent to the claimed node ID specification device.

Referring to claim 14: Hewitt's register for storing the device configuration information is the read-only memory.

Referring to claims 15-16: Hewitt discloses the configuration process (column 5, lines 43-48), which accesses/retrieves/transmits the configuration information of each node.

### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 1, 3-8, 17-25, and 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Frazier (U.S. Patent No. 6,499,066) and Hewitt.

Referring to claim 1: Frazier discloses a computer system/structure with multiple nodes (figure 1, structures 120, 150, and 180). Frazier does not explicitly disclose the initialization of each node and the communication among the nodes. Hewitt discloses a packet-based communication (column 1, lines 36-52). Hewitt teaches that the packet-based communication can overcome the drawback of the shard-bus architecture, such as the restraints between the signal bandwidth and signal integrity (column 1, lines 25-35). Hewitt further discloses that the node stores a list of the node ID information (column 5, lines 46-50) and each node has a configuration register for its own configuration information (column 1, last line, column 2, lines 1-2). The configuration information within the configuration register is equivalent to the node ID information, and the configuration process (column 5, lines 43-48) is equivalent to the claimed determining node information identifying a second node device, and the configuration register is equivalent to the claimed storing means for the node ID information.

Hewitt discloses that any node located on a communication path between the source node and the target node may relay or forward the packets from the source node to the target node (column 1, lines 49-52). Therefore, when the second node is on the communication path between the first node and third node, the second node will forward the third node's configuration to the first node, and the second node's implementation of the storage for the purpose of forwarding means is equivalent to the storage device.

Hence, it would have been obvious to one having ordinary skill in the computer art to adapt the Hewitt's teaching onto Frazier because Hewitt teaches one to overcome the constraints of the signal bandwidth and signal integrity with the packet-based communication protocol.

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Referring to claim 3: Hewitt discloses a device list (column 5, line 48), the means for storing the device list is equivalent to the claimed storage device. Hewitt discloses that any node located on a communication path between the source node and the target node may relay or forward the packets from the source node to the target node (column 1, lines 49-52). Therefore, when the third node is on the communication path between the first node and forth node, the third node will forward the forth node's configuration to the first node, and the third node's implementation of the storage for the purpose of forwarding means is equivalent to the storage device.

Referring to claim 4: The retrieval of the configuration information is equivalent to the claimed retrieving node ID information.

Referring to claim 5: Hewitt discloses a device list (column 5, line 48), which is equivalent to the claimed storage device. Hewitt discloses that any node located on a communication path between the source node and the target node may relay or forward the packets from the source node to the target node (column 1, lines 49-52). Therefore, when the forth node is on the communication path between the first node and fifth node, the forth node will forward the fifth node's configuration to the first node, and the forth node's implementation of the storage for the purpose of forwarding means is equivalent to the storage device.

Referring to claim 6: Hewitt discloses that each node has a configuration register (column 1, last line, column 2, lines 1-2). The configuration information in the configuration register is equivalent to the claimed node ID information, and the configuration register is equivalent to the claimed node ID specification device.

Referring to claims 7-8: Hewitt discloses the configuration process (column 5, lines 43-48), which accesses/retrieves/transmits the configuration information of each node.

Referring to claim 17: Frazier discloses a computer system/structure with multiple nodes (figure 1, structures 120, 150, and 180). Frazier does not explicitly disclose the initialization of each node and the communication among the nodes. Hewitt discloses a packet-based communication (column 1, lines 36-52). Hewitt teaches that the packet-based communication can overcome the drawback of the shard-bus architecture, such as the restraints between the signal bandwidth and signal integrity (column 1, lines 25-35). Hewitt further discloses that the node stores a list of the node ID information (column 5, lines 46-50) and each node has a configuration register for its own configuration information (column 1, last line, column 2, lines 1-2). The configuration information within the configuration register is equivalent to the node ID information, and the configuration process (column 5, lines 43-48) is equivalent to the claimed determining node information identifying a second node device, and the configuration register is equivalent to the claimed storing means for the node ID information.

Hewitt discloses that any node located on a communication path between the source node and the target node may relay or forward the packets from the source node to the target node (column 1, lines 49-52). Therefore, when the second node is on the communication path between the first node and third node, the second node will forward the third node's configuration to the first node, and the second node's implementation of the storage for the purpose of forwarding means is equivalent to the storage device.



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Hence, it would have been obvious to one having ordinary skill in the computer art to adapt the Hewitt's teaching onto Frazier because Hewitt teaches one to overcome the constraints of the signal bandwidth and signal integrity with the packet-based communication protocol.

Referring to claim 18: Hewitt's register for storing the device configuration information is the read-only memory.

Referring to claim 19: Frazier discloses a main storage (figure 1, structure 110), which is equivalent to the claimed hard disk drive.

Referring to claim 20: Frazier discloses a computer system/structure with multiple nodes (figure 1, structures 120, 150, and 180). Frazier does not explicitly disclose the initialization of each node and the communication among the nodes. Hewitt discloses a packet-based communication (column 1, lines 36-52). Hewitt teaches that the packet-based communication can overcome the drawback of the shard-bus architecture, such as the restraints between the signal bandwidth and signal integrity (column 1, lines 25-35). Hewitt further discloses that the node stores a list of the node ID information (column 5, lines 46-50) and each node has a configuration register for its own configuration information (column 1, last line, column 2, lines 1-2). The configuration information within the configuration register is equivalent to the node ID information, and the configuration process (column 5, lines 43-48) is equivalent to the claimed determining node information identifying a second node device, and the configuration register is equivalent to the claimed storing means for the node ID information.

Hewitt discloses that any node located on a communication path between the source node and the target node may relay or forward the packets from the source node to the target node (column 1, lines 49-52). Therefore, when the second node is on the communication path

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between the first node and third node, the second node will forward the third node's configuration to the first node, and the second node's implementation of the storage for the purpose of forwarding means is equivalent to the storage device.

Hence, it would have been obvious to one having ordinary skill in the computer art to adapt the Hewitt's teaching onto Frazier because Hewitt teaches one to overcome the constraints of the signal bandwidth and signal integrity with the packet-based communication protocol.

Referring to claims 21-22: Frazier discloses the IBM Enterprise System Architecture, which is a network server.

Referring to claim 23: Frazier discloses a computer system/structure with multiple nodes (figure 1, structures 120, 150, and 180). Frazier does not explicitly disclose the initialization of each node and the communication among the nodes. Hewitt discloses a packet-based communication (column 1, lines 36-52). Hewitt teaches that the packet-based communication can overcome the drawback of the shard-bus architecture, such as the restraints between the signal bandwidth and signal integrity (column 1, lines 25-35). Hewitt further discloses that the node stores a list of the node ID information (column 5, lines 46-50) and each node has a configuration register for its own configuration information (column 1, last line, column 2, lines 1-2). The configuration information within the configuration register is equivalent to the node ID information, and the configuration process (column 5, lines 43-48) is equivalent to the claimed determining node information identifying a second node device, and the configuration register is equivalent to the claimed storing means for the node ID information.

Hewitt discloses that any node located on a communication path between the source node and the target node may relay or forward the packets from the source node to the target node

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(column 1, lines 49-52). Therefore, when the second node is on the communication path between the first node and third node, the second node will forward the third node's configuration to the first node, and the second node's implementation of the storage for the purpose of forwarding means is equivalent to the storage device.

Hence, it would have been obvious to one having ordinary skill in the computer art to adapt the Hewitt's teaching onto Frazier because Hewitt teaches one to overcome the constraints of the signal bandwidth and signal integrity with the packet-based communication protocol.

Referring to claims 27 and 29: Hewitt discloses a device list (column 5, line 48), which is equivalent to the claimed storage device. Hewitt discloses that any node located on a communication path between the source node and the target node may relay or forward the packets from the source node to the target node (column 1, lines 49-52). Therefore, when the third node is on the communication path between the first node and forth node, the third node will forward the forth node's configuration to the first node, and the third node's implementation of the storage for the purpose of forwarding means is equivalent to the storage device.

Referring to claim 29: Frazier discloses a computer system/structure with multiple nodes (figure 1, structures 120, 150, and 180). Frazier discloses a multi-port switch (figure 1, structure 150), I/O hub controllers (figure 1, structure 180), and a scalable node controller (figure 1, structure 120) connecting to at least one processor (figure 1, structure 130). Frazier does not explicitly disclose the initialization of each node and the communication among the nodes.

Hewitt discloses a packet-based communication (column 1, lines 36-52). Hewitt teaches that the packet-based communication can overcome the drawback of the shard-bus architecture, such as the restraints between the signal bandwidth and signal integrity (column 1, lines 25-35).

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Hewitt further discloses that the node stores a list of the node ID information (column 5, lines 46-50) and each node has a configuration register for its own configuration information (column 1, last line, column 2, lines 1-2). The configuration information within the configuration register is equivalent to the node ID information, and the configuration process (column 5, lines 43-48) is equivalent to the claimed determining node information identifying a second node device, and the configuration register is equivalent to the claimed storing means for the node ID information.

Hewitt discloses that any node located on a communication path between the source node and the target node may relay or forward the packets from the source node to the target node (column 1, lines 49-52). Therefore, when the second node is on the communication path between the first node and third node, the second node will forward the third node's configuration to the first node, and the second node's implementation of the storage for the purpose of forwarding means is equivalent to the storage device.

Hence, it would have been obvious to one having ordinary skill in the computer art to adapt the Hewitt's teaching onto Frazier because Hewitt teaches one to overcome the constraints of the signal bandwidth and signal integrity with the packet-based communication protocol.

Referring to claims 28 and 30: Hewitt discloses a device list (column 5, line 48), the means for storing the device list is equivalent to the claimed storage device. Hewitt discloses that any node located on a communication path between the source node and the target node may relay or forward the packets from the source node to the target node (column 1, lines 49-52). Therefore, when the third node is on the communication path between the first node and forth node, the third node will forward the forth node's configuration to the first node, and the third node's implementation of the storage for the purpose of forwarding means is equivalent to the

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storage device. The retrieval of the configuration information is equivalent to the claimed retrieving node ID information.

11. Claims 12-13 rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Hewitt and Amberg et al. (U.S. Patent No. 5,664,221).

Referring to claim 12: Hewitt's disclosures are stated above. Hewitt discloses the means for storing node ID information, but Hewitt does not explicitly disclose jumper pin or DIP switch for manually configure the device address. Amberg discloses that the SCSI protocol provides jumper pin (column 1, line 23) and DIP switch (column 1, line 30) for user to manually configure the device. Amberg teaches that it is known to employ either jumper pin or DIP switch to provide flexibility to manually resolve any resource conflicts in initializing bus devices. Hence, it would have been obvious to one having ordinary skill at the time Applicant made the invention to adapt Amberg's teaching onto Hewitt because Amberg teaches one to employ either jumper pin or DIP switch in order to provide flexibility to manually resolve any resource conflicts in initializing bus devices.

### ***Response to Arguments***

12. Applicant's arguments with respect to claims 1 and 3-30 have been considered but are moot in view of the new ground(s) of rejection stated above.

***Conclusion***

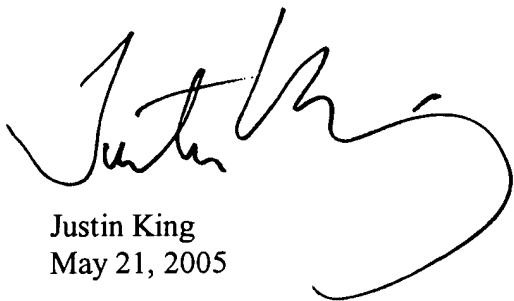
13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin I. King whose telephone number is 571-272-3628. The examiner can normally be reached on Monday through Friday, 9:00 am to 5:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on 571-272-3632 or on the central telephone number, (571) 272-2100. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Lastly, paper copies of cited U.S. patents and U.S. patent application publications will cease to be mailed to applicants with Office actions as of June 2004. Paper copies of foreign patents and non-patent literature will continue to be included with office actions. These cited U.S. patents and patent application publications are available for download via the Office's PAIR. As an alternate source, all U.S. patents and patent application publications are available on the USPTO web site ([www.uspto.gov](http://www.uspto.gov)), from the Office of Public Records and from commercial sources. Applicants are referred to the Electronic Business Center (EBC) at <http://www.uspto.gov/ebc/index.html> or 1-866-217-9197 for information on this policy. Requests

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to restart a period for response due to a missing U.S. patent or patent application publications  
will not be granted.



Justin King  
May 21, 2005



**TIM VO**  
**PRIMARY EXAMINER**